

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**



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*Order Instituting Rulemaking Regarding  
Broadband Infrastructure Deployment and  
to Support Service Providers in the State  
of California*

Rulemaking 20-09-001

(Filed 07/01/21)

**REPLY COMMENTS OF CENTER FOR ACCESSIBLE TECHNOLOGY,  
ELECTRONIC FRONTIER FOUNDATION, AND PUBLIC KNOWLEDGE<sup>1</sup> IN  
RESPONSE TO ASSIGNED ADMINISTRATIVE LAW JUDGE'S RULING**

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<sup>1</sup> Public Knowledge has a pending Motion for Party Status that was filed on July 12, 2021.

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In accordance with the schedule set by ALJ Thomas J. Glegola, the Electronic Frontier Foundation (EFF), Public Knowledge, and the Center for Accessible Technology (collectively the Joint Advocates) jointly submit these comments in response to the May 28, 2021 Assigned Administrative Law Judge’s Ruling (“Phase II-B Ruling”) and the July 7, 2021 Assigned Administrative Law Judge’s e-mail ruling extending the deadline for Reply Comments to July 26, 2021.

## **I. INTRODUCTION**

The Commission should immediately create anti-digital redlining and data reporting rules and begin any necessary enforcement actions. If the Commission does determine that further investigation is necessary, it should conduct an independent assessment of the material facts in this proceeding. The Commission should reject provider arguments that inferior technology is sufficient for low-income communities and communities of color, and the Commission should reject providers’ requests for more handouts in exchange for making the same failed promises.

## **II. DISCUSSION**

### **A. The Commission Should Disregard Providers’ Attempts to Distract from the Issues in this Proceeding.**

From a cursory review of providers’ comments, it appears that they are more upset about the Commission’s use of the word “redlining” than the fact that the current state of California’s broadband network results in inequitable and discriminatory impacts on low-income communities and communities of color. For example, AT&T describes the term “redlining” as “highly-charged.”<sup>2</sup> Comcast objects that “[i]t is not accurate or constructive to invoke a highly charged term such as “redlining” as a catch-all for other factors.”<sup>3</sup> CCTA complains that its

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<sup>2</sup> AT&T Opening Comments at p. 1.

<sup>3</sup> Comcast Opening Comments at p. 3.

“members are not ‘redlining,’ under any definition of that term.”<sup>4</sup> ACLPI describes the use of the word “redlining” as inappropriate.<sup>5</sup> Cox claims that “redlining” is not a term “typically associated with the communications industry.”<sup>6</sup>

As discussed in Joint Advocates’ Opening Comments,<sup>7</sup> digital redlining is a consequence of historical redlining in housing. Accordingly, the use of the term “redlining” in this proceeding is appropriate. Joint Advocates suspect that some parties’ umbrage at the Commission’s use of the term stems from their discomfort and defensiveness in response to being confronted by information about racial inequality and injustice.<sup>8</sup> Whatever the providers’ motivation, the Commission should not be distracted by arguments about the appropriateness of the term. The term “digital redlining” has been used to describe disparities in broadband access since at least 2016.<sup>9</sup> Similarly, the Commission should not be sidetracked by arguments that the Commission should find a more palatable term,<sup>10</sup> but rather should focus on the primary issue in this proceeding: whether providers’ broadband deployment practices have resulted in discriminatory impacts on communities of color and low-income communities.

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<sup>4</sup> CCTA Opening Comments at p. 4.

<sup>5</sup> ACLPI Opening Comments at p. 3.

<sup>6</sup> Cox Opening Comments at p. 2.

<sup>7</sup> Joint Advocates served their Opening Comments on the service list on July 2, 2021, the day opening comments were due in this proceeding. The Docket Office rejected the filing because of Joint Advocates’ procedural error in the proceeding. Those Opening Comments are currently the subject of a Motion to Late File, filed with the Commission on July 26, 2021. For the convenience of the Commission and other Parties, Joint Advocates have included an additional copy of those comments as Attachment 1 to this document.

<sup>8</sup> See Robin DiAngelo, *White Fragility: Why It’s So Hard for White People to Talk about Racism* (Beacon Press 2018).

<sup>9</sup> See The Greenlining Institute, Greenlining Institute Comments on NTIA Broadband Research Agenda 2 (Oct. 11, 2016), available at <https://greenlining.org/wp-content/uploads/2016/10/Greenlining-Institute-Comment-on-NTIA-Broadband-Research-Agenda-1.pdf> (last accessed July 24, 2021).

<sup>10</sup> Even if the Commission were to avoid use of the word “redlining,” this would have no effect on the ongoing and clear lack of adequate service in communities that have faced historical discrimination and exclusion. The problem remains and must be addressed. To do this, it is best to accurately name it, but in any case, it cannot be swept under the rug

## **B. Providers Fail to Acknowledge the Role of Implicit Bias and the Impacts of Historical Redlining.**

Providers' Opening Comments demonstrate a lack of understanding of both implicit bias-driven decisions and the ongoing impacts of digital redlining. Providers conflate the intent behind deployment investment decisions with the impact of their deployment investment decisions. In doing so, providers focus almost exclusively on defending their own decision-making processes, and accordingly do not address the overall cumulative impact of the investment decisions made by decisionmakers throughout the communications industry or the pervasive aftereffects of redlining. Providers then further confound efforts at progress by making the highly problematic and deeply flawed argument that providing inferior broadband infrastructure to low-income communities, communities of color, and other historically marginalized communities is sufficient.

### **1. The Commission should Consider the Potential Role of Implicit Bias in Driving Providers' Investment Decisions.**

While the filings submitted on behalf of the various carriers take different positions on the activity taking place in this phase of the docket, each of the filings uses the company name as the entity that is expressing the position. This is common practice at the Commission, and it creates the semblance of corporate emotions and opinions. For example, AT&T's Opening Comments state that "AT&T is eager" to work with the Commission.<sup>11</sup> Cox's Opening Comments state that "Cox is concerned" about the Commission's inclusion of the three studies in its OIR.<sup>12</sup> Similarly, CCTA's Opening Comments state that CCTA "appreciates" the Commission's goal of enhancing broadband deployment.<sup>13</sup> Comcast's Opening Comments state

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<sup>11</sup> AT&T Opening Comments at p. 2.

<sup>12</sup> Cox Opening Comments at p. 3.

<sup>13</sup> See CCTA Opening Comments at p. 2.

that “Comcast cannot speak for how other ISPs choose to build out or upgrade their networks.”<sup>14</sup> Small LECs Opening Comments go so far as to describe Small LECs as biological entities: “while cost is always a factor in deployment and the companies must prudently expend resources, discriminatory build-out or service motives based on race or socio-economic status are simply not in the Small LECs’ corporate “DNA.”<sup>15</sup>

Joint Advocates understand, and themselves follow, the custom and practice of referring to the decisions, positions, and actions taken by staff at organizations as if they were the decisions, positions, and actions taken by the organizations themselves. However, this custom and practice obscures the fact that providers’ decisions, positions, and actions are made by **individuals**, or groups of individuals.<sup>16</sup> Those individuals, like all individuals in a society, are suffused with and participate in the broad existence of implicit racial bias that pervades our communities, consisting of “a mental process that stimulates negative attitudes about people who are not members of one’s own ‘in group’” and “leads to discrimination against people who are not members of one’s own racial group.”<sup>17</sup> Historically, most of providers’ decisionmakers are not members of underrepresented groups or communities.<sup>18</sup> Accordingly, those decisions may

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<sup>14</sup> Comcast Opening Comments at p. 17.

<sup>15</sup> Small LECs Opening Comments at p. 2.

<sup>16</sup> A corporate entity cannot be eager, concerned, or appreciative, nor can it speak for itself or make decisions, take positions, or take actions. Rather, individuals, or groups of individuals, inside those organizations make decisions and take positions or actions. This distinction is critical, because a provider cannot act unless at least one person has decided that the provider should do so. For example, the Department of Justice has implemented policies that criminal and civil corporate investigations should focus on the individuals responsible for the misconduct. U.S. Department of Justice, Memo re: Individual Accountability for Corporate Wrongdoing (Sept. 9, 2015), available at <https://www.justice.gov/archives/dag/file/769036/download> (last accessed July 24, 2021).

<sup>17</sup> Ohio State University, Kirwan Institute, Understanding Implicit Bias at p. 2, *available at* <https://www.nea.org/resource-library/implicit-bias-microaggressions-and-stereotypes-resources> (download link located at bottom of web page) (last accessed July 24, 2021).

<sup>18</sup> See California Public Utilities Commission’s Business and Community Outreach Group of the Office of the Executive Director Staff Proposal to Revise General Order 156 for the Supplier Diversity Program

be influenced by the decisionmaker's racial biases. Providers' failure to consider, or even acknowledge, this possibility demonstrates an insufficient understanding of implicit bias and how it may have affected providers' deployment decisions.

## **2. Providers' Opening Comments Demonstrate a Lack of Understanding of Digital Redlining.**

Providers adopt a very restrictive view of redlining, narrowly defining it as decisions made **intentionally** to refuse to serve certain populations based on race, ethnicity, or income status;<sup>19</sup> based on this narrow definition, they then assert that the concept of redlining is not applicable to the communications industry.<sup>20</sup> AT&T states that redlining "has historically implied intentional discrimination."<sup>21</sup> Consolidated refers to redlining as decisions "based on illegal discriminatory intent,"<sup>22</sup> and Comcast describes redlining as "discriminatory practices."<sup>23</sup>

This narrow definition leads providers to make faulty conclusions. Providers focus on the intent behind their decisions regarding broadband investment and fail to appropriately consider the resulting impact of these investments and the level of service they provide. In doing so, they entirely fail to address the continuing economic impacts of historical redlining. Providers spend a great deal of time defending their own practices, but they neglect to consider the state of service available now, which is the result of the overall cumulative impact of the investment decisions made by decisionmakers throughout the communications industry. Finally,

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at p 10. (July 16, 2021), *available at* <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M393/K925/393925573.PDF> (last accessed July 26, 2021) (noting that stakeholders raised concerns whether participants were sufficiently encouraging diversity within their own employees and boards).

<sup>19</sup> AT&T Opening Comments at p. 1; Comcast Opening Comments at p. 3;

<sup>20</sup> ACLPI further narrows this interpretation by insisting that redlining includes only government-backed efforts. ACLPI Opening Comments at p. 3.

<sup>21</sup> AT&T Opening Comments at p. 1.

<sup>22</sup> Consolidated Opening Comments at p. 1.

<sup>23</sup> Comcast Opening Comments at p. 17.

providers make the faulty, and deeply offensive, argument that providing “separate but equal” facilities to low-income communities and communities of color is acceptable.

**a. Providers Conflate the Intent behind Deployment Investment and the Impact of Their Deployment Investment.**

The providers apparently take great umbrage at the suggestion that their broadband investment decisions might result in disparate impacts on low-income communities and communities of color. Charter argues that racial/ethnic composition and income do not appear to drive a provider’s decision to add or remove service from a given census block.<sup>24</sup> CCTA argues that “[c]able broadband providers do not deny broadband service to consumers based on race or income.”<sup>25</sup> Small LECs note that they “have every incentive to provide service wherever there are sufficient facilities to support broadband connections.”<sup>26</sup> AT&T argues that there is no “reasonable basis for an investigation or to conclude that AT&T has refused to serve Californians on the basis of race or income.”<sup>27</sup> Comcast’s expert, Dr. Israel, goes so far as to argue that prioritization of upgrades to **any** ISP’s broadband network can **never** be evidence of redlining.<sup>28</sup>

Providers’ arguments that they have not engaged in intentional discrimination focus exclusively on the mental state of decisionmakers and fail to consider in any way the resulting outcomes. However, it is possible for actions to have impacts that are entirely divorced from the intent behind those actions. For example, AT&T, Comcast and Verizon are among the top ten

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<sup>24</sup> Charter Opening Comments, Exhibit A, at p. iii.

<sup>25</sup> CCTA Opening Comments at p. 8.

<sup>26</sup> Small LECs Opening Comments at p. 3.

<sup>27</sup> AT&T Opening Comments at p. 3.

<sup>28</sup> Comcast Opening Comments, Declaration of Mark A. Israel and Bryan G. M. Keating at p. 14 (“Prioritization of upgrades to **any** ISP’s broadband access network, particularly when done based on economically rational cost and demand considerations, is not evidence of ‘redlining.’”) (emphasis added).

donors to state politicians who have sponsored and supported bills that would limit citizens' access to ballots and their ability to vote, with low-income populations and communities of color at greatest risk of having their voting rights limited.<sup>29</sup> It is entirely possible that AT&T, Comcast, and Verizon donated to those politicians based on their position on other issues, not based on their stand against voting rights. However, whatever the corporate intent, those donations could help the politicians successfully run for office, potentially resulting in legislation that negatively impacts the voting rights of low-income communities and communities of color.

Similarly, providers appear to assume that their broadband deployment practices can only be discriminatory if they were made with discriminatory **intent to exclude certain communities**. This fails to consider that providers have made intentional broadband deployment decisions that resulted in unequal access to broadband among communities that have historically faced discrimination, a discriminatory **impact**. Providers claim that they have used “deployment priorities...based on other non-controversial business considerations, such as deployment costs” to determine where to invest in broadband deployment.<sup>30</sup> Even if this is true, however, the three reports noted in the OIR and the opening comments of non-provider parties demonstrate that providers' investment decisions have cumulatively resulted in inequitable access to broadband service.<sup>31</sup> This outcome is the appropriate focus of curative action going forward. Accordingly, providers' claims that their investment decisions were not made with discriminatory intent is irrelevant. The fact remains that there are still demonstrable disparities based on income and

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<sup>29</sup> Greenpeace Reports, Dollars vs. Democracy: Companies and the Attack on Voting Rights and Peaceful Protest at p. 6 (May 2021), available at <https://readsludge.com/2021/07/21/major-companies-get-fs-on-voting-rights-in-new-scorecard/> (last accessed July 26, 2021).

<sup>30</sup> Comcast Opening Comments at p. 3. As noted in Joint Advocates' Opening Comments, this may not be an accurate characterization. Joint Advocates Opening Comments at p. 10.

<sup>31</sup> Joint Advocates Opening Comments at p. 10.

race in that deployment.<sup>32</sup> Because what matters in the situation on the ground, not the projected intent of non-sentient corporations, the Commission should disregard provider arguments that there can be no discriminatory impact on low-income communities and communities of color without intentional discrimination.

Similarly, the Commission should disregard criticisms that the Commission did not include reports “highlight[ing] the billions of dollars of investment that broadband providers in California have been making.”<sup>33</sup> This proceeding is not addressing the question of whether broadband providers are investing in broadband deployment in California. What is at issue is whether those investments have resulted in discriminatory impacts for low-income communities and communities of color.

**b. The Commission’s Investigation of Digital Redlining Must Include an Examination of the Entire Broadband Landscape.**

Question 2 in the ALJ’s May 28, 2021 ruling asks whether there is evidence of a systemic problem in California.<sup>34</sup> As noted above, each provider spends an inordinate amount of time insisting that it does not intentionally discriminate against low-income communities or communities of color. However, providers do not actually respond to the question asked and address whether there is evidence of discrimination based on a cumulative review of where all of the providers have collectively invested in broadband infrastructure (and where they have not). Even CCTA, which describes itself as “the industry’s largest state cable and telecommunications association,”<sup>35</sup> only addresses the separate actions of individual cable companies,<sup>36</sup> and does not

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<sup>32</sup> Joint Advocates Opening Comments at p. 10.

<sup>33</sup> Cox Opening Comments at p. 3.

<sup>34</sup> Assigned Administrative Law Judge’s Ruling at p. 5 (May 28, 2021).

<sup>35</sup> California Cable & Telecommunications Association, About Us, *available at* <https://calcable.org/connect/about-us/> (last accessed July 26, 2021).

<sup>36</sup> CCTA Opening Comments at p. 4.

address the entire broadband ecosystem. Because no provider addresses the status of broadband deployment as a whole, the Commission should reject provider arguments that there is not a systemic problem in California.

**c. The ISPs address redlining but do not address the pervasive aftereffects of redlining.**

With their narrow focus on intent over empirical data, providers not only fail to address the unequal status of broadband deployment, but they also fail to engage with the fact that historical redlining of real estate created long-lasting effects which reach well beyond home ownership and persist today. As noted in Joint Advocates' Opening Comments, historical redlining deprived residents of (predominantly Black) communities of color and low-income communities of the opportunity to build wealth for themselves or their community.<sup>37</sup> These disparities were aggravated by retailers who declined to invest in those neighborhoods and instead invested in wealthier, theoretically more lucrative neighborhoods.<sup>38</sup> This "retail redlining" further deprived the residents of redlined communities of the education, jobs, and resources necessary to build individual, household, and community wealth.<sup>39</sup> Providers' network deployment and upgrade decisions have continued to follow this pattern, resulting in digital redlining that has left unserved and underserved neighborhoods on the wrong side of the digital divide.<sup>40</sup> Providers' broadband deployment decisions, even if economically rational, have effectively replicated and perpetuated disinvestment in historically redlined communities and overinvestment in wealthy, predominantly white, communities.

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<sup>37</sup> Joint Advocates Opening Comments at pp. 15-20.

<sup>38</sup> Joint Advocates Opening Comments at pp. 20-21.

<sup>39</sup> Joint Advocates Opening Comments at pp. 20-21.

<sup>40</sup> Joint Advocates Opening Comments at pp. 24-25.

**d. The Commission should Reject Provider Arguments that Providing “Separate but Equal” Broadband Facilities to Low-Income Communities and Communities of Color is Acceptable.**

Providers inappropriately and astonishingly argue that it shouldn’t matter whether communities of color and low-income communities are receiving discriminatory treatment because those communities have access to some minimum level of broadband, and that should be good enough. For example, ACLPI objects to the use of the term “redlining” on the grounds that “broadband internet access at different speeds and enabled by different technologies is widely available across the state.”<sup>41</sup> AT&T criticizes stakeholders who “focus solely on AT&T’s fiber network, and thus erroneously ignore AT&T’s wireless networks, all other AT&T non-fiber wireline deployments for broadband service, and all of AT&T’s other activities to help close the digital divide.”<sup>42</sup> Comcast criticizes the USC and CWA/NDIA studies for not considering inferior “wireless service (both fixed and mobile) from their analyses, focusing solely on the presence or absence of fiber.”<sup>43</sup> Comcast does admit to the existence of “gaps or differences in service availability at particular speeds” but argues that those gaps or differences “do not automatically support a finding of *discrimination*.”<sup>44</sup> Cox criticizes the USC Study for focusing “exclusively on FTTP deployment as a proxy for broadband investment, which is not a complete (or particularly informative) proxy for the availability of high-speed broadband services.”<sup>45</sup> CCTA cites the existence of low-cost programs, as evidence that communities have the ability “to subscribe to a broadband service which best meets their needs.”<sup>46</sup>

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<sup>41</sup> ACLPI Opening Comments at p. 3.

<sup>42</sup> AT&T Opening Comments at p. 9.

<sup>43</sup> Comcast Opening Comments at p. 15.

<sup>44</sup> Comcast Opening Comments at p. 21 (emphasis in original).

<sup>45</sup> Charter Opening Comments at p. 5.

<sup>46</sup> CCTA Opening Comments at p. 4. As the Greenlining Report notes, the speeds offered by these programs are insufficient. Vinhcent Le and Gissela Moya, *On the Wrong Side of the Digital Divide: Life*

These arguments disregard the Commission’s finding in D.16-12-025, which held that “while mobile voice service generally substitutes for landline voice service, mobile and residential broadband services are generally not substitutes.”<sup>47</sup> In arguing that the existence of inferior broadband options in unserved and underserved communities should be sufficient, providers are sending a clear message to those communities: those communities do not matter. Yet providers handwave away these concerns by arguing that if they are providing broadband service to those communities at “adequate levels,”<sup>48</sup> any discriminatory impacts are acceptable or, at the very least, not worth investigating.<sup>49</sup>

Providers’ arguments are particularly repellent because they mirror arguments that have been used to justify race-based discrimination in the past. In 1954, the Supreme Court used language which could be used to describe the importance of broadband today:

It is required in the performance of our most basic public responsibilities, even service in the armed forces. It is the very foundation of good citizenship. Today it is a principal instrument in awakening the child to cultural values, in preparing him for later professional training, and in helping him to adjust normally to his environment. In these days, it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education.<sup>50</sup>

As Comcast notes, providing equitable access to fiber networks is a “subjective policy preference.”<sup>51</sup> However, this argument is not final word that Comcast wishes it to be. Using “light-touch” regulation is a subjective policy preference. The need for universal service is a

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*Without Internet Access, And Why We Must Fix It In The Age Of Covid-19* (June 2020), available at <https://greenlining.org/publications/online-resources/2020/on-the-wrong-side-of-the-digital-divide/> (last accessed June 23, 2021) (hereafter, “Greenlining Report”).

<sup>47</sup> D.16-12-025 at p. 40, I.15-11-007 (state of competition in communications).

<sup>48</sup> Comcast Opening Comments at p. 22.

<sup>49</sup> Joint Advocates address the problems with evaluating broadband service using a “minimum floor of connectivity” below.

<sup>50</sup> *Brown v. Board of Education*, 347 U.S. 483 (1954).

<sup>51</sup> Comcast Opening Comments at p. 23.

subjective policy preference. Protecting the civil rights of historically marginalized groups is a subjective policy preference. Prioritizing profits over equity is a **subjective policy preference**. While Comcast may not be bothered by broadband policies that have resulted in disparate impacts on low-income communities and communities of color, Joint Advocates find those policies repugnant, as should the Commission.

Despite the critical importance of broadband, providers argue that the Commission should not be concerned because the providers are offering unserved and underserved communities the functional equivalent of “**separate but equal**” service. As was always the case, the separate service is not in any way equal in the face of differential options and in the actual service provided. Rather, providers’ discriminatory deployment of broadband effectively relegates communities of color and low-income communities to the back of the digital bus. These injustices are unacceptable, and the Commission should immediately take action to address the differentials.

### **C. The Commission Should Conduct an Independent Assessment of the Material Factual Disputes in this Proceeding.**

As discussed in Joint Advocates’ Opening Comments, there is ample evidence of disparate access to high-speed, reliable broadband not only for low-income consumers but also for communities of color.<sup>52</sup> In response to this evidence, and as discussed above, providers’ Opening Comments entirely fail to provide any meaningful analysis of implicit bias, redlining, discriminatory impacts, the state of the entire broadband ecosystem, the pervasive aftereffects of redlining, and the impacts of these historical and ongoing factors on digital equity. Providers’ sparse analysis is insufficient to rebut the ample factual evidence of digital redlining.

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<sup>52</sup> Joint Advocates Opening Comments at p. 3.

Accordingly, the Commission has a sufficient record to determine that digital redlining exists in California and initiate appropriate steps to begin to remedy the problem. Joint Advocates respectfully request that the Commission move forward by crafting robust anti-digital redlining rules and data reporting requirements and determine the need for enforcement actions against individual providers.<sup>53</sup>

If, however, the Commission feels it necessary to develop a more robust record about the existence of digital redlining, it should conduct its own assessment, using its own data and methodology. By using its own data, the Commission can avoid the inaccuracy and bias that plague old FCC broadband data, and those that potentially exist in more recent FCC data. If the Commission does conduct further investigation, it must reject providers' objections to the studies already in the record and their claim that existing data refutes the existence of redlining.<sup>54</sup> For example, Comcast suggests that the *Greenlining* study is inaccurate because it does not reflect the FCC's data. It then notes that according to FCC data, "94 percent of Oakland residents have access to two or more fixed broadband providers at speeds of at least 100/10 Mbps."<sup>55</sup> However, the FCC data cited by Comcast is deeply flawed. Although Congress directed the FCC to update its maps in 2020, the FCC has not yet completed those maps.<sup>56</sup> Existing maps suffer from a host of problems.<sup>57</sup> They overestimate deployment by looking at whether ISPs **can** provide service,

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<sup>53</sup> While a less likely scenario, the Commission should also consider whether it should bring enforcement actions against two or more providers jointly.

<sup>54</sup> AT&T Comments at 3

<sup>55</sup> Comcast Opening Comments at p. 9.

<sup>56</sup> See 47 USC § 642; Press Release, Senator Wicker, Committee Leaders Urge FCC to Quickly Produce Accurate Broadband Maps (March 8, 2021), *available at* <https://www.commerce.senate.gov/2021/3/committee-leaders-urge-fcc-to-quickly-produce-accurate-broadband-maps> (last accessed July 26, 2021).

<https://www.commerce.senate.gov/services/files/6FF5E2B5-4738-4E60-87BE-7CB3A4696E2F>

<sup>57</sup> Shara Tibken, *Millions of Americans Can't Get Broadband Because of a Faulty FCC Map. There's a fix*, C-Net (Feb. 19, 2021), *available at* <https://www.cnet.com/features/millions-of-americans-cant-get-broadband-because-of-a-faulty-fcc-map-theres-a-fix/> (last accessed July 26, 2021).

not whether service is actually provided.<sup>58</sup> They also count every household in a census block as a “served” household, even if just one home or business within that block is served.<sup>59</sup> This causes the FCC to underestimate the number of Americans served by at least 20 million.<sup>60</sup> Moreover, data on available speeds is likely inaccurate because the FCC Report is based on the speeds ISPs advertise, not the speeds customers actually have available.<sup>61</sup> Finally, and most importantly, the FCC relies upon **self-reported** data from ISPs. In the past, ISPs have provided the FCC with woefully inaccurate information that significantly overstates deployment. This includes AT&T, which was found just last year to have falsely reported serving nearly 3,600 census blocks across 20 states.<sup>62</sup>

In its comments, AT&T pushes the Commission to rely on the FCC’s forthcoming maps.<sup>63</sup> However, AT&T neglects to note that while the forthcoming maps should be a significant improvement, they will still be based on self-reported data from ISPs. Moreover, these new maps will still undercount the number of Americans served. ISPs can still report an area as served if they **have the ability to** provide service, even if they do not actually provide

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<sup>58</sup> *Id.*

<sup>59</sup> *Id.*

<sup>60</sup> John Busby et al., *FCC Reports Broadband Unavailable to 21.3 Million Americans*, BroadbandNow Study Indicates 42 Million Do Not Have Access, BroadbandNow (May 11, 2021), <https://broadbandnow.com/research/fcc-underestimates-unserved-by-50-percent> (last accessed July 26, 2021).

<sup>61</sup> Shara Tibken, *Millions of Americans Can't Get Broadband Because of a Faulty FCC Map. There's a fix*, C-Net (Feb. 19, 2021), available at <https://www.cnet.com/features/millions-of-americans-cant-get-broadband-because-of-a-faulty-fcc-map-theres-a-fix/> (last accessed July 26, 2021).

<sup>62</sup> Jon Brodtkin, *AT&T gave FCC False Broadband-Coverage Data in Parts of 20 States*, (Apr. 17, 2020), available at <https://arstechnica.com/tech-policy/2020/04/att-gave-fcc-false-broadband-coverage-data-in-parts-of-20-states/> (last accessed July 26, 2021); see also Devin Coldewey, *FCC dings company for \$164k after its false broadband claims distorted national report*, (Sept. 2, 2020), available at <https://techcrunch.com/2020/09/02/fcc-dings-company-for-164k-after-its-false-broadband-claims-distorted-national-report/> (last accessed July 26, 2021) (noting that BarrierFree falsely claimed to serve 62 million customers).

<sup>63</sup> AT&T Opening Comments at p. 25.

it.<sup>64</sup> Moreover, while ISPs will be required to submit more granular data in the form of shapefiles, they will not be required to submit data about the availability of broadband at each address.<sup>65</sup> These shapefiles will still enable overcounting, although to a lesser degree. Finally, ISPs can still overestimate speeds by reporting on offered, and not actual, speeds.<sup>66</sup>

In addition to using data more accurate than that provided in the FCC maps, the Commission may wish to reassess the source data and study methodology used by Communications Division staff. As the Central Coast Broadband Consortium notes, that source data and study methodology appear “to understate the extent of redlining by incumbent telephone and cable companies in California.”<sup>67</sup> Any data the Commission collects should affirmatively seek to remedy the shortfalls of existing and forthcoming FCC data on broadband availability and speeds. Digital redlining is unjust and cannot continue to stand. If the Commission does conduct further investigation, it must make every attempt to understand the problem using accurate information.

**D. The Commission Should Reject Provider Arguments that Inferior Technology is Sufficient for Low-Income Communities and Communities of Color.**

**1. Wireless is not a Substitute for Wireline Connectivity.**

The Federal Communications Commission to date does not consider wireless to be a substitute for wireline connectivity, and neither, for good reason and consistent with prior holdings that wireless service is not a substitute for wireline service,<sup>68</sup> should the CPUC. Advancements in expanding capacity in fiber networks, such as time and wavelength division

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<sup>64</sup> 47 USC § 642.

<sup>65</sup> *Id.*

<sup>66</sup> *Id.*

<sup>67</sup> Central Coast Broadband Consortium Opening Comments at pp. 2-3.

<sup>68</sup> D.16-12-025 at p. 40, I.15-11-007 (state of competition in communications).

multiplexed passive optical network technologies (TWDM-PON)<sup>69</sup> enable carriers to not only expand networks but also to increase the capacity of fiber to the home (FTTH) networks that were deployed years ago—indeed, symmetrical 10 gigabit speeds became a reality six years ago.<sup>70</sup>

By comparison, existing wireless LTE (“long-term evolution”) service is typically able to transmit between 100 Mbps to 1 Gbps<sup>71</sup> with 5G tests delivering median user experiences of 490 Mbps up to 1.4 Gbps under certain simulations.<sup>72</sup> Fiber is faster, period. In other words, 21<sup>st</sup> century wireline infrastructure is orders of magnitude ahead of wireless, and the Commission should never consider them equivalents or viable for substitution as certain commentators have suggested.

Setting aside the wide gulf of transmission speed capacity between the two technologies, the Commission should also recognize the differences between wireless 5G and FTTH in terms of infrastructure costs: FTTH is much cheaper to upgrade. Both networks will be expensive to deploy, but future upgrades to wireless capacity are significantly more limited than future upgrades to wireline. As a general matter, the capacity of fiber networks can increase through advancements that increase the number of signals can be transmitted through a fiber strand, or by adding additional fiber strands to the network. Wireless technologies, on the other hand depend

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<sup>69</sup> Ron Heron, *TWDM-PON: Taking Fiber to New Wavelengths*, NOKIA (Apr. 1, 2014), available at [http://origin-prod-blog.nokia.com/en\\_int/twdm-pon-taking-fiber-new-wavelengths](http://origin-prod-blog.nokia.com/en_int/twdm-pon-taking-fiber-new-wavelengths) (last accessed July 26, 2021).

<sup>70</sup> Lightwave Staff, *EPB Brings 10-GBPS FTTH to Chattanooga*, LIGHTWAVE (OCT. 19, 2015), available at <https://www.lightwaveonline.com/articles/2015/10/epb-brings-10-gbps-ftth-to-chattanooga.html> (last accessed July 26, 2021).

<sup>71</sup> INTERNATIONAL TELECOMMUNICATIONS UNION, *Requirements Related to Technical Performance for IMT-Advanced Radio Interface(s)*, available at <http://www.itu.int/pub/R-REP-M.2134-2008/en> (last accessed July 26, 2021).

<sup>72</sup> QUALCOMM, *Qualcomm Network Simulation Shows Significant 5G User Experience Gains*, available at <https://www.qualcomm.com/news/releases/2018/02/25/qualcomm-network-simulation-shows-significant-5g-user-experience-gains> (last accessed July 26, 2021).

on the allocation of finite spectrum and must deal with the limitations of specific frequencies, such as interference and dependency on line of sight. Moreover, 5G towers have an early estimated range of around 1000 feet requiring additional towers to be built just to maintain optimal speeds.<sup>73</sup>

Existing international markets that have both high-speed wireline service and universal LTE demonstrate that wireless and wireline broadband are not substitutes. Comparing the existing advancements in data transmission for wireline technologies to the potential advancements in data transmission for wireless services makes it plain that the Commission should avoid assessing those technologies as equivalents. In fact, it is better to view them as complements. For example, in a handful of international markets that have high fiber deployments and high coverage of LTE services it is shown that consumers value both an ultra-high-capacity connection provided by FTTH and the mobility afforded to them by LTE services. For example, the Nordic market has fixed broadband and mobile services that match or exceed US speeds.<sup>74</sup> Denmark has seen an increase in their fiber deployment despite 98 percent coverage of 4G LTE. Norway and Sweden lead Western Europe in fiber network deployments; at the same time, Norway has 99.3% mobile penetration and Sweden has 120.8 mobile subscriptions for every 100 inhabitants.<sup>75</sup> In short, there is no market that proves out the argument that wireless broadband replaces or serves as a substitute for wireline broadband.

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<sup>73</sup> Marc Vartabedian, *What 5G Will Mean to Consumers – and When*, WALL STREET JOURNAL (Sep. 12, 2018), available at <https://www.wsj.com/articles/what-5g-will-mean-to-consumersand-when-1536804241?redirect=amp#click=https://t.co/5C64nZQYss> (last accessed July 26, 2021).

<sup>74</sup> See SPEEDTEST, *United States Report*, available at <http://www.speedtest.net/reports/united-states/> (last accessed July 26, 2021); See also SPEEDTEST, *Nordic Countries Report*, available at <http://www.speedtest.net/reports/nordic/> (last accessed July 26, 2021).

<sup>75</sup> *Id.*

## **2. Cable Networks Will be Unable to Handle the Projected Growth of Broadband Demand.**

As discussed above, providers regularly point out that consumers enjoy a minimum floor of connectivity at a nearly universal level but miss the point that this proceeding is an inquiry into digital redlining of *infrastructure*. Multiple services can deliver defined minimum download and upload speeds if the Commission lowers the bar of what constitutes “high speed” internet enough. However, what is really at stake here is what the future holds for those last mile connections and their future proof capacity. The providers’ effort to support low minimum standards would paper over the fact that proper “future proof” broadband infrastructure should be able to accommodate anticipated levels of annual growth of internet consumption (currently at 21% per year) for as long as possible.<sup>76</sup> Not all infrastructure options in the broadband market are equally ready for the future. As a result, the decisions providers make when deploying future proof infrastructure will bring with it more than just the connectivity delivered today, but the available speeds for the future. Ensuring non-discriminatory deployment now will ensure equal access to that high-speed future. The Commission should appropriately focus on the most future-proof technologies (currently, primarily FTTH), for communities that have historically been underserved in order to reduce the risk that service to these communities will continue to lag behind.

In any decision in building out a broadband network, that network’s usefulness and capacity to handle the projected growth of consumption are vitally important factors to analyzing discrimination. For years without fail, data consumption has continued to rise as more applications and services require greater amounts of capacity. Because these trends have held so

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<sup>76</sup> Doug Dawson, *Why Fiber*, POTs and PANs (Feb. 1, 2021), *available at* <https://potsandpansbyccg.com/2021/02/01/why-fiber> (last accessed July 26, 2021).

consistent for so many years, it is imperative that the Commission assess the future proof capacity of the various last mile deployments being chosen by providers to ensure future needs are also being met in a non-discriminatory fashion. Cisco's Annual Report indicates the extent to which North American usage has risen in recent years:<sup>77</sup>

| Year | North America IP Based Traffic in Exabytes Per Month |
|------|--|
| 2012 | 14.4   |
| 2018 | 43   |
| 2022 | 90   |

**Source: Cisco Visual Predictions 2012-2017 and 2017 - 2022**

The COVID-19 pandemic has only accelerated usage trends with the advent of distributed work models becoming the norm even as the pandemic recedes.<sup>78</sup> In other words, the public will continuously need more data capacity in their connections, and carriers are planning how to meet those future needs with deployment decisions (and the rules that govern them) today. In order to ensure that low-income communities and communities of color have equitable access to broadband infrastructure, the Commission should reject cable providers' arguments that cable-based networks are a reasonable substitute for fiber-based networks.

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<sup>77</sup> Cisco, *Annual Internet Report (2018-2023) White Paper* (Mar. 9, 2020), available at <https://www.cisco.com/c/en/us/solutions/collateral/executive-perspectives/annual-internet-report/white-paper-c11-741490.html> (last accessed July 26, 2021).

<sup>78</sup> Caroline Castrillon, *This is the Future of Remote Work in 2021*, FORBES (Dec. 27, 2020), available at <https://www.forbes.com/sites/carolinecastrillon/2021/12/27/this-is-the-future-of-remote-work-in-2021/?sh=1019985f1e1d> (last accessed July 26, 2021).

### 3. The Commission Should Reject AT&T's Arguments that Its Broadband Investment was a Voluntary Strategy.

The Commission should consider why, in its Opening Comments, AT&T selected 2016 as the first year of its purportedly successful fiber network deployment strategy.<sup>79</sup> From 2016 until 2020, the Federal Communications Commission required that AT&T build 12.5 million fiber to the home connections as a condition of its approval of the AT&T/DirecTV merger.<sup>80</sup> In other words, AT&T's deployment strategy during those four years was not of its own design, but rather was completed at the direction of the FCC. The exact terms of those obligations are confidential, and therefore not part of the public record. As discussed below, the Commission should obtain that confidential information and use it as part of its analysis of digital redlining.

Furthermore, based on the FCC record, the evidence shows that AT&T intended to deploy fewer than 2 million fiber-to-the-home connections. In other words, the FCC directed the company to include deployment to an additional 10.5 million homes beyond what AT&T itself intended. While the FCC clearly demanded an increase in total deployment, the Commission should investigate whether it mandated any non-discrimination or specific low-income household obligations that would remedy or prevent digital redlining. If those obligations were in fact present, they would further support the Commission's justification for establishing anti-

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<sup>79</sup> AT&T Opening Comments at p. 12.

<sup>80</sup> FEDERAL COMMUNICATIONS COMMISSION, FCC Releases Order Approving AT&T-DirecTV Transaction (Jul. 28, 2015), The FCC's Order stated:

<sup>1039</sup> The 12.5 million FTTP customer locations that will be deployed as a result of this condition include: (1) [BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.] locations were approved before the expansion plans, and [BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.] were newly approved as part of the expansion to 25 metropolitan area locations; (2) [BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.] that were previously determined to be profitable but were not funded as part of the GigaPower expansion; (3) 2 million additional locations that the Applicants determined were profitable as a result of this transaction; and (4) an additional [BEGIN HIGHLY CONF. INFO.] [END HIGHLY CONF. INFO.] greenfield locations to which AT&T estimates it would deploy FTTP during the four year FTTP deployment commitment period.

digital redlining rules going forward. Without the most relevant data per AT&T's assertions of non-discriminatory deployment between the years of 2016-2020, it is difficult to determine whether AT&T's deployment strategy was the product of the business or the government. Notably, whatever obligations applied to AT&T in the past have now expired,<sup>81</sup> allowing for the real possibility of ongoing digital redlining absent some guardrails.

**E. The Commission should Not Provide Handouts to Providers without Additional Requirements to Eliminate Digital Redlining and Advance Equity.**

As noted above, providers argue that discriminatory deployment of broadband is not the problem. Rather, they claim, the problem is that, despite their supracompetitive profits, California is not giving providers enough money.<sup>82</sup> For example, Comcast demands further payments for infrastructure buildout.<sup>83</sup> Cox asks that the Commission ensure that providers have access to federal broadband funds and also that the Commission eliminate local government control over public rights of way.<sup>84</sup> CCTA makes similar requests.<sup>85</sup> The Commission should be very skeptical of these requests, as they are identical to requests that providers have made in the past. However, previous handouts to providers, including, recently, the availability of increased infrastructure funding,<sup>86</sup> and the FCC's reduction of community control over public rights-of-

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<sup>81</sup> Mike Robuck, *AT&T Cuts 1,800 jobs as Fiber Build-Out Slows*, FIERCE TELECOM (Jun. 19, 2019), available at <https://www.fiercetelecom.com/telecom/at-t-cuts-1-800-jobs-as-fiber-build-out-slows> (last accessed July 26, 2021).

<sup>82</sup> See AT&T Opening Comments at p. 6; CCTA Opening Comments at pp. 6-7; Charter Opening Comments at p. 32; Comcast Opening Comments at p. 28; Cox Opening Comments at p. 12.

<sup>83</sup> Comcast Opening Comments at p. 28.

<sup>84</sup> Cox Opening Comments at p. 12.

<sup>85</sup> CCTA Opening Comments at p. 5.

<sup>86</sup> POTs and PANs, *The FCC Drops the Ball on RDOF* (December 8, 2021), available at <https://potsandpansbyccg.com/2020/12/08/the-fcc-drops-the-ball-on-rdof/> (last accessed July 26, 2021).

way<sup>87</sup> have failed to address the issues raised in this proceeding. Providing yet more funding to incumbent providers **without additional requirements to advance equity** will enrich the very companies whose policies led to digital redlining. The Commission should refuse to do this.

The Commission should also be skeptical of AT&T's arguments that closing the digital divide **must** involve the efforts of incumbent providers<sup>88</sup> and arguments that the Commission should focus on public-private partnerships.<sup>89</sup> While incumbent providers can potentially help remedy digital redlining, they are in no way **necessary**. Publicly-owned broadband networks are an effective tool for bridging the digital divide.<sup>90</sup> As discussed above and in Joint Advocates' Opening Comments,<sup>91</sup> the incumbent providers' investment decisions, including those using public funds, have failed to remedy digital redlining and low-income communities' and communities' of color inequitable access to broadband infrastructure. While Joint Advocates appreciate good-faith efforts by incumbent providers to remedy digital redlining, the Commission should not rely exclusively on those efforts.

The California Assembly and Governor recently indicated that public broadband projects, without the interference of private providers, represent a viable path forward for addressing inequitable broadband access and bridging the digital divide.<sup>92</sup> Given incumbent providers'

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<sup>87</sup> FEDERAL COMMUNICATIONS COMMISSION, Declaratory Ruling and Third Report and Order, In the Matter of Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment, WT Docket No. 17-79 (September 27, 2018).

<sup>88</sup> AT&T states that closing the Digital Divide will require "extraordinary effort from **all** stakeholders to resolve these complex issues" AT&T Opening Comments at p. 4 (emphasis added).

<sup>89</sup> ACLPI Opening Comments at p. 20.

<sup>90</sup> See Katie Kienbaum, islr.org, What Your City Can Do to Close Digital Divides During Covid (Aug. 25, 2020), available at <https://ilsr.org/what-your-city-can-do-to-close-digital-divides-during-covid/> (last accessed July 26, 2021).

<sup>91</sup> Joint Advocates Opening Comments at p. 3.

<sup>92</sup> See Assem. Bill 156, 2021-2022 Sess., 2021 Cal. Stat.; See Sen. Bill 156, 2021-2022 Sess., 2021 Cal. Stat.

historical failure to provide equitable broadband access, it may well be better for the Commission to develop policies that are free from provider recalcitrance and foot-dragging. The Commission should ensure that public funds are spent wisely by encouraging the development of municipal broadband infrastructure.

### III. CONCLUSION

Providers' Opening Comments are universally dismissive of the ample evidence that they have engaged in digital redlining or, for that matter, that they are even capable of, engaging in digital redlining. Their failure to acknowledge both history and the well-researched evidence in this proceeding leads them to ignore what is in plain sight: providers' broadband investment decisions have resulted in inferior broadband infrastructure for communities of color and low-income communities. While the providers can ignore this problem, the Commission most certainly should not. Joint Advocates urge the Commission to act immediately to implement robust, enforceable regulations that seek to reverse the effects of digital redlining and improve access to broadband service in a manner that is equitable and provides certainty that historically neglected communities will not fall further behind.

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Respectfully submitted,

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